1.3 SF

M-3

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 10
SEATTLE, WASHINGTON 98101

REPLY TO ATTN OF: HW-113

DEC 3 1987

MEMORANDUM

SUBJECT: Sites for Field Testing

FROM: James M. Everts, Chief
Superfund Response and Investigations Section

TO: Scott Parrish, Chief
NPL Branch (WH-548E)

Enclosed are the site characteristics checklist forms and narrative summaries for three sites to be field tested in Region 10. The sites that have been identified are:

Thane Mine Dump - Juneau, Alaska
Tulalip Landfill - Marysville, Washington
Spokane Junkyard - Spokane, Washington

Region 10 has already established Ecology and Environment (E&E) project managers and EPA Superfund site managers for these projects and is proceeding to fast track the work plan development. We plan to participate in the orientation/training session on December 14-16. The E&E attendees are Jeff Whidden, Bob Duffner and Joe Hunt. Region 10 will be represented by David Bennett, NPL Coordinator, and Bill Glasser, Pre-Remedial Program.

If you have any questions, please feel free to call me at FTS 399-1196. Questions specific to the sites can be addressed to Debbie Flood (399-2722) or Bill Glasser (399-7215).

Enclosure

cc: Jeff Tuttle, E&E Arlington
Tom Tobin, E&E Seattle
John Osborn, FIT-RPO

1.3

Tulalip Landfill (Big Flats)
Tulalip Reservation
Marysville, Washington

The Tulalip landfill site is situated on an island in the Snohomish delta. The delta represents a coastal wetlands environment. The site itself is bounded by Ebey Slough on the north and Steamboat Slough on the south. The western portion of the island consists primarily of saltwater marshlands and the southwest shore faces Puget sound.

The facility operated as an active landfill from 1964-1979. An estimated 6 million cubic yards of mixed municipal and industrial refuse was deposited during the site's 15 year history. Tulalip landfill was the prime repository for Seattle's hospital waste, a component of which is known to be infectious. Water samples taken from an active area of the fill in 1974 showed elevated numbers of nosocomial pathogens (pseudomonas aeruginosa, staphylococcus aureus, and clostridium perfringens). Concerns were expressed by EPA over the potential transfer of R-factors (antibiotic resistance) to resident bacterial populations.

Groundwater is normally found at depths of 5-10 feet below finished grade and is subject to tidal influence. An estimated 60-100 million gallons of leachate are generated each year and discharged to the estuarine environment. Elevated levels of heavy metals typically associated with landfill leachate have been detected in ambient water samples (e.g., As, Zn).

Four of the five species of salmon inhabit the adjacent sloughs. These species are present both as spawning adults and juveniles. There are reports of crabs and other shellfish having been harvested from these waters by the Tulalip Tribe.

The demography within a 3 mile radius of the site is not well characterized. The beneficial uses of ground and surface waters are unknown.

A preliminary assessment for the Tulalip landfill was completed by the Washington State Department of Ecology in August 1984. EPA Region 10 FIT completed a site inspection in January 1985. Additional data collection is necessary to adequately address potentially affected surface waters and related receptors.

SITE CHARACTERISTICS CHECKLIST

Site Name: Tulalip Landfill

Site Location: West of Marysville WA

Site Status[1]: SI completed

EPA Region: 10

Outside Continental U.S.? no

Predominant Source Type[2]: LFW

CHARACTERISTIC	YES	NO	COMMENTS ON DATA AVAILABILITY/OTHER EXPLANATORY DISCUSSION
Multiple waste-disposal locations		X	
Multiple source types			Unknown
Available waste quantity information	X		Approximately 6 million cubic yards
Underlying karst aquifers		X	
Sizable number of nearby private wells			Unknown sloughs and Puget Sound probably act as hydraulic barriers
Presence of nearby surface waters	X		site bounded by two sloughs and Puget Sound
Nearby drinking water intakes			Unknown
Potential surface water recreation targets	X		site situated adjacent to city of Everett
Potential human food chain problems	X		Shellfish may be harvested for human consumption
Significant environmental problems	X		60-100 million gals/yr of leachate being generated and discharged to sensitive environment (coastal wetlands)
Suspected air contamination problems		X	no suspected exposure pathway
Adjacent residential and/or school properties	X		demography not fully characterized
Extensive soil contamination	X		implicated by available data

Key:

[1]For site status:

Address the current status of the site within the pre-remedial program (e.g., PA completed, SI completed, LSI scheduled)

[2]For predominant source type:

CA - containers (above-ground)
CB - containers (below-ground)
LFM - landfill (municipal)
LFI - landfill (industrial)
CS - contaminated soil
MW - mining wastes
SI - surface impoundment
WP - waste pile
OTH - other (please describe)

ATTACHMENT 2

Thane Mine Dump
Juneau, Alaska

The Thane Mine Dump site is located approximately 2.5 miles southeast of Juneau, Alaska. Tailings generated from the Alaska Gastineau Mine have been deposited on the seaward side (west) of Thane Road. The site covers approximately 50 acres, which include deposited mine tailings in the Sheep Creek outwash plain and tidal areas of Gastineau Channel.

Echo Bay Mines, the current owner, took 13 grab samples from the tailings pile and had the samples analyzed for a limited number of heavy metals. Arsenic, lead, and mercury were found at concentrations greater than five times instrument detection limits. Lead concentration was recorded as 180 ppm in one sample.

The population of Juneau is approximately 19,500. Private domestic wells serve an approximate population of 65 persons in the town of Thane. The Juneau municipal water system obtains water from 90-foot wells in the Gold Creek Basin and the Salmon Creek Reservoir. Both municipal systems are greater than 3 miles from the site. It is unknown whether surface water resources are utilized for drinking or irrigation within 3 miles of the site. A commercial fish hatchery is located upstream from the tailings and hatchery fish reportedly swim though waters in contact with the tailings. The most probable exposure pathway for contaminants is aeolian transport of inhalable particulates during wind storms.

A preliminary assessment of the Thane Mine dump site was completed by FIT in October 1987. EPA Region 10 recently approved a screening site inspection (SSI) for the purpose of identifying receptors which may be potentially impacted by the site.

SITE CHARACTERISTICS CHECKLIST

Site Name: Thane Mine Dump

Site Location: Thane, AK

Site Status[1]: PA completed, SI scheduled

EPA Region: 10

Outside Continental U.S.? no (outside contiguous

Predominant Source Type[2]: MW

ATTACHMENT 2

CHARACTERISTIC	YES	NO	COMMENTS ON DATA AVAILABILITY/OTHER EXPLANATORY DISCUSSION
Multiple waste-disposal locations			Unknown, additional tailings piles may exist
Multiple source types		X	
Available waste quantity information	X		Tailings pile covers approximately 50 acres
Underlying karst aquifers		X	
Sizable number of nearby private wells			Unknown
Presence of nearby surface waters	X		Sheep Creek and Gastineau Channel
Nearby drinking water intakes			Unknown
Potential surface water recreation targets			Unknown
Potential human food chain problems	X		Potential impact on fish hatchery, shellfish and resident bottomfish
Significant environmental problems	X		Tailings contain As, Hg, and Pb. Portion of pile submerged in Sheep Creek and Gastineau Channel
Suspected air contamination problems	X		Aeolian forces may be significant in contaminant transport
Adjacent residential and/or school properties	X		residence located approx 1/4 mi from site
Extensive soil contamination			potential

Key:

[1]For site status:

Address the current status of the site within the pre-remedial program (e.g., PA completed, SI completed, LSI scheduled)

[2]For predominant source type:

CA - containers (above-ground)
CB - containers (below-ground)
LFM - landfill (municipal)
LFI - landfill (industrial)
LFW - landfill (mixed waste)
CS - contaminated soil
MW - mining wastes
SI - surface impoundment
WP - waste pile
OTH - other (please describe)

Spokane Junkyard
Spokane, Washington

The Spokane Junkyard and associated sites are located within the city limits of the City of Spokane. The sites were the locations of a junkyard, which accumulated large amounts of asbestos and surplus chemicals, and a metal scrapping facility. The metal scrapping facility, which has been inoperative for several years, apparently was involved in transformer salvage, although the PRP has no records or reported knowledge of this. Approximately 7 acres are involved and contamination exists on the land of 5 different property owners. The site is bounded on the west by an elementary school and on the north by a pharmaceutical manufacturing plant. The City of Spokane is located over the Spokane-Rathdrum Prairie Aquifer, a sole aquifer, and a city drinking water well is within 1 mile of the site. The aquifer is reported to be at a depth of 80-120 feet below the site and the intervening strata are composed of coarse sands and gravels or fractured basalt.

The site was brought to the attention of EPA as a result of a fire and explosions that occurred on July 15, 1987. Due to the involvement of chemicals and the location of the facility, EPA responded to the fire and began a removal action. The current property owner was unable to assume the response; the previous owner, who was responsible for the materials being brought to the junkyard site, was unable to be located. During sampling at the fire site, it was discovered that large areas of PCB contaminated soils were present, as well as high levels of several metals, including lead, chromium, and barium. Present estimates for the volume of contaminated soils are between 4500 and 6000 cubic yards. During the removal actions approximately 150 drums of materials were composited and repackaged and 140 cubic yards of asbestos were disposed of. The drummed waste streams included PCB oils, flammable liquids and solids, halogenated solids and liquids, and corrosives. The site currently is stabilized and EPA is awaiting acceptance of the drummed materials by appropriate treatment/disposal facilities.

An EE/CA will be performed to in an effort to allow removal authorities to be used to continue site clean-up, as an action that will contribute to the long-term remedial actions for these sites.

An estimated 187,000 people in the vicinity of the site use the drinking water from the nearest city well. No known surface water resources are impacted by the site. The area becomes very dry during the summer months and the site appears to present an inhalation hazard, through particulates.

No enforcement actions are currently planned. A PRP search has been initiated to search for PRPs not currently identified. None of the current property owners, with the exception of Spokane Metals, appears to have contributed to the contamination. The estate of the Spokane Metals property does not at this time appear to have the financial resources to perform any actions at the site and have declined to assume responsibility for the emergency actions.

ATTACHMENT 7

SITE CHARACTERISTICS CHECKLIST

Site Name: Spokane Junkyard

Site Location: Spokane, Washington

Site Status[1]: no pre-remedial activities completed

EPA Region: 10

Outside Continental U.S.? No

Predominant Source Type[2]: CS

CHARACTERISTIC	YES	NO	COMMENTS ON DATA AVAILABILITY/OTHER EXPLANATORY DISCUSSION
Multiple waste-disposal locations	X		
Multiple source types	X		
Available waste quantity information	X		Some data available
Underlying karst aquifers		X	Fractured basalt, sole source aquifer
Sizable number of nearby private wells	X		Sole source aquifer provides all drinking water for this area
Presence of nearby surface waters		X	
Nearby drinking water intakes		X	Not from surface water
Potential surface water recreation targets		X	
Potential human food chain problems			Unknown
Significant environmental problems			Unknown
Suspected air contamination problems	X		
Adjacent residential and/or school properties	X		
Extensive soil contamination	X		

Key:

[1]For site status:

Address the current status of the site within the pre-remedial program (e.g., PA completed, SI completed, LSI scheduled)

[2]For predominant source type:

CA - containers (above-ground)
CB - containers (below-ground)
LFM - landfill (municipal)
LFI - landfill (industrial)
LFW - landfill (mixed waste)
CS - contaminated soil
MW - mining wastes
SI - surface impoundment
WP - waste
OTH - other (describe)